

Forage Production of Native Warm-Season Grass Varieties in Beltsville, MD

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There are many available varieties of native warm-season grasses that could be used to provide valuable summer forage in rotational grazing systems. To better utilize these grasses, more forage productivity data is needed for specific growing regions. The objective of this study is to determine the total and seasonal yield of warm-season grasses varieties when grown in Maryland in a simulated rotational grazing system. Forage production information will help farmers to optimize production in a sustainable manner that will conserve natural resources and benefit their bottom line. Total yield and seasonal growth curve data will be incorporated into the C-Graz grazing model which is a valuable tool for planning and optimizing rotational grazing systems. Included in this study are a total of 36 varieties of eastern gamagrass, switchgrass, big bluestem, indiagrass, little bluestem, Florida paspalum, and coastal panicgrass. Varieties were planted with a cone-seeder in June, 2005 at the NRCS, National Plant Materials Center located at Beltsville, Maryland. Experimental design was a randomized complete block with four replications. Cuttings were made using a Carter flail-type harvester and cut to a height of 8 inches. The plots were not harvested until 2007 to allow grasses to fully establish. For 2007, the five most productive varieties were 'Carthage' switchgrass, 'Atlantic' coastal panicgrass, 'Kanlow' switchgrass, 'Cave in Rock' switchgrass, and 'Shawnee' switchgrass, listed in order of most productive first. Eastern gamagrass, Florida paspalum, and coastal panicgrass continued growth later than other species, providing the greatest late season yield. Stands have filled out more and yields have been higher in 2008. Of particular note, Florida paspalum, which yielded well in 2007, has yielded exceptionally well in 2008 perhaps due to higher rainfall.

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